

**KING FAHD UNIVERSITY OF PETROLEUM & MINERALS**  
**DEPARTMENT OF MATHEMATICS & STATISTICS**

**Term 172**  
**STAT 319 Quiz #2**

Name: \_\_\_\_\_ ID #: \_\_\_\_\_

1) Consider the following probability distribution function

$x$	-2	-1	0	1	2
$f(x)$	1/8	2/8	3/8	1/8	

Find

a)  $f(2)$  *(1 mark)*

b)  $P(-1 \leq X < 1)$  *(1 mark)*

c) The mean of  $X$ . *(1 mark)*

d) The variance of  $X$ . *(2 marks)*

e) The cumulative distribution function of  $X$ . *(2 marks)*

2) A company employs 100 men over the age of 55. Suppose that 30% of these workers have an increased risk of high blood pressure. If 5 men over the age of 55 are tested, what is the probability that more than 1 has an increased risk of high blood pressure? *(3 marks)*